

## **CURRENT BEST PRACTICES FOR PCBs IN CAULK FACT SHEET**

### **Testing in Buildings**

Last Updated: September 2009

#### **PCBs in caulk**

EPA has learned that caulk containing polychlorinated biphenyls (PCBs) was used in many buildings, including schools, during building construction, renovation, or repair from the 1950s through the late 1970s.

This fact sheet identifies key information on testing for PCBs in caulk or in soil or air. Testing will serve two purposes:

- to determine if PCBs are present in caulk and
- if PCBs are present, whether the potential exposure will be dermal, from inhalation and/or from ingestion.

In addition, this fact sheet identifies who to contact at EPA for advice on addressing PCBs in caulk.

PCBs were not added to caulk after 1978. Therefore in general, schools built after 1978 do not contain PCBs in caulk. To date it has been found in buildings in the Northeast and Upper Midwest and in joints in concrete water storage basins in the western United States. Activities to address PCBs in caulk are underway in these areas. EPA is encouraging greater awareness of this issue so people can take steps to minimize potential exposure.

Exposure to PCBs can cause a variety of adverse health effects in animals and humans. PCBs have been shown to cause cancer in animals, as well as a number of serious non-cancer health effects, including effects on the immune system, reproductive system, nervous system, endocrine system and other health effects. In humans PCBs are potentially cancer-causing and can cause other non-cancer effects as well. For more information on the health effects of PCBs, go to: [www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/effects.htm](http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/effects.htm).

As part of EPA's overall effort to provide guidance to building owners concerning PCB containing caulk in buildings, EPA has produced three other fact sheets that address potential interim measures that may be taken prior to cleanup and disposal of caulk. These fact sheets can be found on EPA's website at [www.epa.gov/pcbsincaulk](http://www.epa.gov/pcbsincaulk).

#### **How to determine if PCBs are present in caulk and surrounding material**

In addition to caulk manufactured to contain PCBs, EPA has learned that PCBs may have been added to caulk products during construction to enhance flexibility. To determine if the caulk in your school or building contains PCBs:

- **review records** about construction, if available,

- **consider air testing** to determine if PCB levels in the air exceed EPA's safety thresholds, if school administrators and building owners are concerned,
- **test chipping or flaking caulk by sending samples to a chemical analysis laboratory** to determine the presence and concentration of PCBs, and
- **test nearby material (e.g., brick, cinder block, or wood) to determine if it contains PCBs** because PCBs in caulk can migrate into surrounding material. Some building owners have done such testing prior to a renovation project.

### *Tests to determine the concentration of the PCBs:*

For determining the presence of PCBs in indoor air, EPA has two approved methods: Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air – Compendium Method TO-4A (high air volume) and Compendium Method TO-10A (low air volume). These two methods can be found respectively at:

[www.epa.gov/ttnamti1/files/ambient/airtox/to-4ar2r.pdf](http://www.epa.gov/ttnamti1/files/ambient/airtox/to-4ar2r.pdf) and  
[www.epa.gov/ttnamti1/files/ambient/airtox/to-10ar.pdf](http://www.epa.gov/ttnamti1/files/ambient/airtox/to-10ar.pdf)

The PCB regulations provide appropriate methods for this purpose, such as method 3500B/3540C from EPA's SW-846, Test Methods for Evaluating Solid Waste; or an alternative method validated under subpart Q, for chemical extraction of PCBs. For analyzing extracts, Method 8082 from EPA's SW-846 or a method validated under Subpart Q is appropriate.

Approximate costs for testing are as follows:

Air Analysis: \$550 per sample  
 Wipe analysis: \$100 per sample  
 Caulk analysis: \$100 per sample  
 Soil Analysis: \$100 per sample

More information on these procedures can be found at:

[www.epa.gov/epawaste/hazard/testmethods/sw846/index.htm](http://www.epa.gov/epawaste/hazard/testmethods/sw846/index.htm) and  
[www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/wipe-samp.pdf](http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/wipe-samp.pdf)

### *Tests to determine potential exposure pathways:*

If PCBs are present in the caulk or the surrounding materials, the results can be used to evaluate potential exposure pathways via dermal (skin), ingestion or inhalation.

EPA has developed a fact sheet on [Interim Measures for Assessing Risk and Taking Action to Reduce Exposure](#) which will help building owners take steps to reduce potential occupant exposure to PCBs.

### **Ask EPA experts for help addressing PCBs in caulk**

When you have received the results of the tests to identify the absence or presence of PCBs, you should contact the U.S. EPA Regional PCB Coordinator in your area to discuss what your cleanup and removal options are. For more information on PCBs in caulk, contact the PCBs in Caulk Hotline at 888-835-5372. Find the PCB coordinator for your state at [www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/coordin.htm](http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/coordin.htm).

This fact sheet is intended solely for guidance and should be used as an informal reference. It does not replace or supplant the requirements of the Toxic Substances Control Act or the PCB regulations at 40 C.F.R. part 761, and it is not binding on the Agency or individuals. Please refer to the regulations at 40 C.F.R. part 761 for specific requirements relating to PCBs and PCB-containing materials.